

## **Abstract**

A noise level calculator for detecting noise in a telephone line echo canceller that utilizes adaptive filters enables silencing of noise switching so that it is not heard on the far end side. The calculator promotes determining whether the reference signal applied to the adaptive filter is a noise or non-noise segment. The calculator operates by calculating the difference in energy of two sample windows, calculating the difference in the energy of the signal within each of the sample windows, updating a variance parameter based on the difference, and performing further alternative operations based on the value of the variance parameter.